

## **Historic, Archive Document**

Do not assume content reflects current  
scientific knowledge, policies, or practices.



Reserve

A292.9

S03S



U. S. DEPT. OF AGRICULTURE  
NATIONAL AGRICULTURAL LIBRARY  
RECEIVED

OCT 21 1971

EDUCATION SECTION  
SPECIAL COLLECTIONS

FEDERAL - STATE - PRIVATE  
**COOPERATIVE SNOW SURVEYS**  
for  
**ALASKA**

U. S. DEPARTMENT of AGRICULTURE , SOIL CONSERVATION SERVICE  
and  
ALASKA SOIL CONSERVATION DISTRICT

Data included in this report were obtained by the agencies named above in cooperation with the U.S. Army Corps of Engineers, Alaska Power Administration, U.S. Geological Survey, Alaska Highway Dept., Alaska Department of Fish and Game, University of Alaska, Greater Anchorage Area Borough and others.

AS OF  
**MAR. 1, 1971**

## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent, and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters of key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

| STATE              | ADDRESS                                                             |
|--------------------|---------------------------------------------------------------------|
| Alaska             | P. O. Box "F", Palmer, Alaska 99645                                 |
| Arizona            | 6029 Federal Building, Phoenix, Arizona 85025                       |
| Colorado (N. Mex.) | 12417 Federal Building, Denver, Colorado 80202                      |
| Idaho              | Room 345, 304 N. 8th. St., Boise, Idaho 83702                       |
| Montana            | P. O. Box 970, Bozeman, Montana 59715                               |
| Nevada             | P. O. Box 4850, Reno Nevada 89505                                   |
| Oregon             | 1218 S. W. Washington St., Portland, Oregon 97205                   |
| Utah               | 4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111 |
| Washington         | 360 U.S. Court House, Spokane, Washington 99201                     |
| Wyoming            | P. O. Box 2440, Casper, Wyoming 82601                               |

### PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



# SNOW SURVEYS *for* ALASKA

*Issued by*

KENNETH E. GRANT

ADMINISTRATOR  
SOIL CONSERVATION SERVICE  
WASHINGTON, D.C.

*Report Prepared by*

T. G. FREEMAN, Snow Survey Supervisor

*Released by*

W. E. LONG, State Conservationist

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
P.O. BOX F, PALMER, ALASKA

MARCH 1971

In contrast to 1970 where the lightest snowpack on record was measured in interior Alaska, the winter of 1971 will be marked as the season of heaviest snow cover for many years. Water content of the snowpack in the Fairbanks area ranges from 10 to 15 inches which is equal to the average total annual precipitation of the region. Unusually heavy snow cover is reported in the Chena, Salcha, Tanana, Middle and Upper Yukon, and the Koyukuk watersheds. Streamflow from spring snowmelt will be much higher than average on these rivers. Snow depths and water contents are also high in the Kuskokwim drainage and in the mountains of Southeast Alaska.

Deep snows came early to the interior portions of the state. Snow densities are considerably greater than are usually recorded on March 1.

Extremely low temperatures have been common throughout Alaska for much of the winter. The development of extensive depth hoar has taken place in the snowpack in much of the state.

# INSTRUMENT

The instrument is a small, portable, and  
 simple in construction. It is made of  
 brass and is of a cylindrical shape.  
 The instrument is used for measuring  
 the pressure of a gas or liquid.  
 It is used in the laboratory and in  
 the field. It is a very useful  
 instrument for the study of  
 gases and liquids.

The instrument is used for measuring  
 the pressure of a gas or liquid.  
 It is used in the laboratory and in  
 the field. It is a very useful  
 instrument for the study of  
 gases and liquids.



Soils in the interior are drier than normal and can be expected to absorb a portion of spring snowmelt.

#### YUKON above RAMPART

The snowpack of the Chandalar, Koness, Coleen, Porcupine and 40 Mile drainage areas is considerably above average and far greater than last year. Snow cover is near normal at the headwaters as is indicated by the Log Cabin B. C. snow course. Snow is generally 140% of average in the Upper Yukon.

#### TANANA-CHENA Drainage

Snow cover in the Chena and portions of the Tanana drainage is higher than the previous maximum of record in the past ten years. Measurements taken on March 1 indicate that snow water content is 250% of average in the Chena Watershed and 210% of average for the Tanana drainage area.

#### MATANUSKA-SUSITNA-COPPER Drainage

The Matanuska-Susitna-Copper drainage area has slightly greater snow cover than average. Snow depths and water contents measured on the snow courses in this region average 120% of normal. Extremely heavy snowfall was received in parts of the Talkeetna Mountains near March 1.

#### KUSKOKWIM Drainage

Snow course records in the Kuskokwim drainage do not date back far but snow cover is much greater than has been measured in the past few years. Dry soils in this region are expected to absorb a portion of the melting snowpack. Runoff however, should be considerably greater than average.

#### KOYUKUK Drainage

Three new snow courses were established in the Koyukuk drainage along the proposed pipeline corridor. This work was done in cooperation with the Bureau of Land Management. Snow cover throughout the region is considerably more than the average for the past few years but not as great as 1968. Summer streamflow will be higher than average.

#### COASTAL Drainage

Snow cover in the coastal drainage near Anchorage is below average for March 1. Recent storms have added considerably to the high elevation snowpack in the Ship Creek watershed and in the Eklutna drainage. Low elevation snow however, is much less than normal and early summer streamflow will be less than average unless much more snowfall is received in the next two months.





### SNETTISHAM Drainage

Snowpack on the Snettisham watershed is above the average for the past six years. Low elevations snow is considerably greater than normal for this part of Southeast Alaska.

### GLACIER STATIONS

Index snow stations on Wolverine Glacier in the Kenai Mountains, and Gulkana Glacier in the Alaska range have been measured periodically by the U. S. Geological Survey. Snow depth and water content measurements which have been made since last June are reported in the bulletin.

### STREAMFLOW FORECASTS

Streamflow forecast procedures based on snow survey data have been developed for the Chena and Salcha Rivers. March 1 snow survey information is used and the additional amount of snow water to be received is estimated. It is assumed that average rainfall will occur during the spring months.

The Chena river at Fairbanks is forecast to flow 860,000 acre feet during the May-June period. This is an extremely heavy flow amounting to 195% of the average for the past 11 years.

The Salcha river near Salchaket is forecast to flow 1,120,000 acre feet during the May-June snowmelt runoff period. The forecast flow is 191% of the average for the past 11 years.



# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT | THIS YEAR          |                    |                 | PAST RECORD        |           |
|-------------------------------------|--------------------|--------------------|-----------------|--------------------|-----------|
|                                     | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |           |
|                                     | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average † |
| Chena River at Fairbanks            | 860                | 195                | May-June        | 174                | 442       |
| Salcha River at Salchaket           | 1120               | 191                | May-June        | 275                | 586       |

# SNOW

| SNOW                              |        |           | THIS YEAR      |                     |                        | PAST RECORD            |           |                          |
|-----------------------------------|--------|-----------|----------------|---------------------|------------------------|------------------------|-----------|--------------------------|
| DRAINAGE BASIN and/or SNOW COURSE |        |           | Date of Survey | Snow Depth (Inches) | Water Content (Inches) | Water Content (inches) |           | Years of Previous Record |
| NAME                              | Number | Elevation |                |                     |                        | Last Year              | Average † |                          |
| <u>YUKON Drainage:</u>            |        |           |                |                     |                        |                        |           |                          |
| Arctic Village                    | 6      | 2300      | 3/5            | 30                  | 5.2                    | 1.8                    | 2.9       | 7                        |
| Black River                       | 11     | 650       | 3/6            | 28                  | 4.7                    | 2.3                    | 3.4       | 6                        |
| Boundary                          | 15     | 3300      | 3/6            | 28 A                | 5.0E                   | 2.7                    | 4.2       | 4                        |
| Bull Lake                         | 13     | 810       | 3/6            | 37 A                | 7.0E                   | 2.4                    | 3.7       | 4                        |
| Chandalar Lake                    | 3      | 2040      | 3/5            | 24 A                | 4.0E                   | 1.6                    | 2.9       | 5                        |
| Chicken Airstrip                  | 16     | 1650      | 3/6            | 23                  | 3.2                    | 1.8                    | 2.8       | 6                        |
| Circle City                       | 12     | 600       | 3/6            | 38                  | 6.5                    | 2.3                    | 3.2       | 6                        |
| Coleen River                      | 8      | 1100      | 3/5            | 21 A                | 3.6E                   | 1.6                    | 2.5       | 6                        |
| Dempsey Creek                     | 83     | 950       | 3/6            | 36 A                | 6.8E                   | 2.2                    | 2.4       | 2                        |
| Eagle Village                     | 14     | 900       | 3/6            | 30                  | 5.9                    | 2.2                    | 3.8       | 6                        |
| 5 Mile                            |        | 400       | 2/18           | 29                  | 5.5                    | -                      | -         | -                        |
|                                   |        |           | 3/3            | 28                  | 5.5                    | -                      | -         | -                        |
| Fort Yukon                        | 10     | 425       | 3/5            | 26 A                | 4.4E                   | 2.4                    | 2.7       | 6                        |
| Koness Lake                       | 7      | 1790      | 3/5            | 23                  | 3.9                    | 1.6                    | 2.7       | 4                        |
| Log Cabin                         | 69     | 2880      | 3/1            | 40                  | 11.6                   | 11.0                   | 11.4      | 10                       |
| Mt. Fairplay                      | 94     | 3100      | 3/6            | 27 A                | 4.9E                   | 1.9                    | -         | 1                        |
| Nation River                      | 95     | 3050      | -              | -                   | -                      | 2.1                    | -         | 1                        |
| Squaw Lake                        | 4      | 2150      | 3/5            | 28 A                | 4.6E                   | 1.8                    | 3.1       | 4                        |
| Venetie                           | 5      | 610       | 3/5            | 22 A                | 3.6E                   | 1.3                    | 2.4       | 6                        |
| Vundik Lake                       | 9      | 950       | 3/5            | 20 A                | 3.3E                   | 1.4                    | 2.0       | 3                        |
| <u>TANANA-CHENA:</u>              |        |           |                |                     |                        |                        |           |                          |
| Big Delta                         | 29     | 975       | 3/1            | 29                  | 6.1                    | 1.3                    | 2.7       | 10                       |
| Big Windy                         | 22     | 3850      | 1/15           | 10 A                | 2.0E                   | 0.0                    | 2.4       | 3                        |
|                                   |        |           | 2/3            | 14                  | 3.4                    | 0.0                    | 2.8       | 3                        |
|                                   |        |           | 2/18           | 14 A                | 3.4E                   | 1.2                    | 2.3       | 2                        |
|                                   |        |           | 2/26           | 15                  | 4.1                    | 1.2                    | 2.4       | 6                        |
| A - Aerial Marker reading         |        |           |                | E - Estimated       |                        |                        |           |                          |

† 1953-1967 period

1940-1941

Revised 10/1/83

1000

1900. 21. 10.

24. 1997

U. S. 11

4-10 01, 1945

1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 26

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE   |        |           | THIS YEAR      |                     |                        | PAST RECORD            |           |                          |
|-------------------------------------|--------|-----------|----------------|---------------------|------------------------|------------------------|-----------|--------------------------|
|                                     |        |           | Date of Survey | Snow Depth (Inches) | Water Content (Inches) | Water Content (inches) |           | Years of Previous Record |
| NAME                                | Number | Elevation |                |                     |                        | Last Year              | Average + |                          |
| <b>TANANA-CHENA:</b><br>(Continued) |        |           |                |                     |                        |                        |           |                          |
| Bonanza Creek                       | 82     | 1150      | 1/29           | 39                  | 7.8                    | -                      | -         | -                        |
|                                     |        |           | 2/26           | 40                  | 9.1                    | -                      | -         | -                        |
| Caribou Creek                       | 103    | 1440      | 12/15          | 26                  | 4.8                    | 1.2                    | -         | 1                        |
|                                     |        |           | 2/4            | 38                  | 8.5                    | 1.3                    | -         | 1                        |
| Caribou Mine                        | 28     | 1115      | 1/15           | 41 A                | 8.2E                   | 0.6                    | 2.4       | 3                        |
|                                     |        |           | 2/3            | 40                  | 9.5                    | 1.0                    | 2.2       | 2                        |
|                                     |        |           | 2/18           | 41 A                | 9.8E                   | 1.0                    | 2.2       | 2                        |
|                                     |        |           | 2/26           | 43                  | 10.3                   | 1.4                    | 3.6       | 5                        |
| Chena Hot Springs                   | 21     | 1250      | 1/15           | 41 A                | 8.2E                   | 1.3                    | 2.6       | 3                        |
|                                     |        |           | 2/3            | 38                  | 8.8                    | 0.9                    | 2.8       | 3                        |
|                                     |        |           | 2/18           | 44 A                | 10.1E                  | 1.3                    | 2.2       | 2                        |
|                                     |        |           | 2/26           | 42                  | 9.7                    | 1.3                    | 3.1       | 7                        |
| Cleary Summit                       | 18     | 2230      | 1/15           | 39 A                | 7.8E                   | 0.5                    | 1.8       | 2                        |
|                                     |        |           | 2/3            | 43                  | 11.5                   | 1.2                    | 3.6       | 3                        |
|                                     |        |           | 2/18           | 44 A                | 11.9E                  | 1.2                    | 2.5       | 2                        |
|                                     |        |           | 2/26           | 47                  | 12.2                   | 1.8                    | 4.6       | 10                       |
| Colorado Creek                      | 27     | 750       | 11/16          | 12                  | 1.4                    | 0.7                    | -         | 1                        |
|                                     |        |           | 12/7           | 28                  | 5.5                    | -                      | -         | -                        |
|                                     |        |           | 1/8            | 42                  | 9.0                    | 3.0                    | 3.4       | 2                        |
|                                     |        |           | 2/3            | 40                  | 9.2                    | 1.1                    | 3.6       | 5                        |
|                                     |        |           | 2/26           | 42                  | 10.1                   | 1.5                    | 4.2       | 5                        |
| Donnelly Dome                       | 80     | 2200      | 11/17          | 15                  | 3.0                    | 0.5                    | 1.3       | 4                        |
|                                     |        |           | 12/14          | 17                  | 4.1                    | 0.6                    | 2.6       | 4                        |
|                                     |        |           | 2/1            | 38                  | 5.8                    | 1.1                    | 4.2       | 4                        |
|                                     |        |           | 3/3            | 35                  | 7.2                    | 1.2                    | 5.3       | 4                        |
| Fielding Lake                       | 33     | 3000      | -              | -                   | -                      | 5.1                    | 7.6       | 9                        |
| Fort Greely                         | 78     | 1420      | 11/17          | 12                  | 2.4                    | 0.5                    | 1.0       | 4                        |
|                                     |        |           | 12/14          | 17                  | 4.1                    | 0.6                    | 2.6       | 4                        |
|                                     |        |           | 2/2            | 24                  | 4.8                    | 0.8                    | 2.5       | 4                        |
|                                     |        |           | 3/3            | 29                  | 6.0                    | 1.0                    | 3.0       | 4                        |
| French Creek                        | 24     | 2010      | 11/16          | 14                  | 3.9                    | -                      | -         | -                        |
|                                     |        |           | 3/5            | 47                  | 12.2                   | 1.3                    | 5.4       | 8                        |
| Granite Creek                       | 81     | 1235      | 11/16          | 12                  | 2.3                    | 0.5                    | 0.8       | 3                        |
|                                     |        |           | 12/14          | 17                  | 3.8                    | 0.5                    | 1.2       | 3                        |
|                                     |        |           | 2/1            | 25                  | 5.3                    | 0.8                    | 1.9       | 3                        |
|                                     |        |           | 3/1            | 29                  | 6.2                    | 1.0                    | 2.3       | 3                        |
| Haystack Mtn.                       | 102    | 1950      | 12/15          | 34                  | 7.6                    | 1.3                    | -         | 1                        |
|                                     |        |           | 2/4            | 47                  | 12.2                   | 1.8                    | -         | 1                        |
| Little Chena                        | 19     | 2200      | 1/15           | 33 A                | 6.6E                   | 1.0                    | 2.3       | 3                        |
|                                     |        |           | 2/3            | 38                  | 9.2                    | 6.0                    | -         | 1                        |
|                                     |        |           | 2/18           | 39 A                | 9.4E                   | 1.4                    | 2.2       | 2                        |
|                                     |        |           | 3/4            | 44                  | 10.3                   | 1.8                    | 3.9       | 6                        |
| Little Salcha                       | 25     | 1500      | 11/16          | 11                  | 2.5                    | 3.4                    | -         | 1                        |
|                                     |        |           | 3/5            | 40                  | 10.0                   | 1.6                    | 4.9       | 8                        |
| A - Aerial Marker Reading           |        |           |                | E - Estimated       |                        |                        |           |                          |

+ 1953-1967 period





## SNOW

| DRAINAGE BASIN and/or SNOW COURSE   |        |           | THIS YEAR      |                     |                        | PAST RECORD            |           |                          |
|-------------------------------------|--------|-----------|----------------|---------------------|------------------------|------------------------|-----------|--------------------------|
|                                     |        |           | Date of Survey | Snow Depth (Inches) | Water Content (Inches) | Water Content (inches) |           | Years of Previous Record |
| NAME                                | Number | Elevation |                |                     |                        | Last Year              | Average † |                          |
| <u>TANANA-CHENA:</u><br>(Continued) |        |           |                |                     |                        |                        |           |                          |
| Meadows Road                        | 79     | 1570      | 11/17          | 8                   | 2.0                    | 0.4                    | 0.8       | 4                        |
|                                     |        |           | 12/14          | 11                  | 2.5                    | 0.3                    | 1.4       | 4                        |
|                                     |        |           | 2/2            | 20                  | 4.1                    | 0.4                    | 2.0       | 4                        |
|                                     |        |           | 3/3            | 26                  | 4.7                    | 0.7                    | 2.4       | 4                        |
| Mentasta Pass                       | 31     | 2430      | 3/2            | 33                  | 6.7                    | 2.6                    | 4.1       | 8                        |
| Mt. Ryan                            | 20     | 2950      | 1/15           | 41 A                | 8.2E                   | 1.0                    | 2.3       | 3                        |
|                                     |        |           | 2/3            | 48                  | 13.0                   | 7.2                    | -         | 1                        |
|                                     |        |           | 2/18           | 48 A                | 13.0E                  | 1.1                    | 1.9       | 2                        |
|                                     |        |           | 3/4            | 54                  | 15.0                   | 2.3                    | 4.2       | 6                        |
| Munson Ridge                        | 23     | 3100      | 1/15           | 58 A                | 11.6E                  | 1.0                    | 3.7       | 3                        |
|                                     |        |           | 2/3            | 56                  | 16.5                   | 1.1                    | 5.6       | 3                        |
|                                     |        |           | 2/18           | 62 A                | 17.4E                  | 1.1                    | 3.0       | 2                        |
|                                     |        |           | 2/26           | 60                  | 17.9                   | 2.0                    | 8.0       | 7                        |
| Poker Creek                         | 104    | 1025      | 12/15          | 26                  | 5.1                    | 1.1                    | -         | 1                        |
|                                     |        |           | 2/4            | 35                  | 7.8                    | 1.1                    | -         | 1                        |
| Tok Junction                        | 30     | 1650      | 3/2            | 19                  | 3.3                    | 1.6                    | 3.2       | 10                       |
| Upper Chena                         | 75     | 3000      | 1/15           | 60 A                | 12.0E                  | 1.1                    | 3.6       | 3                        |
|                                     |        |           | 2/3            | 56                  | 17.5                   | 3.6                    | 6.4       | 2                        |
|                                     |        |           | 2/18           | 69 A                | 19.3E                  | 1.6                    | 2.5       | 2                        |
|                                     |        |           | 2/26           | 61                  | 18.2                   | 0.9                    | 4.5       | 3                        |
| Wien Lake                           | 74     | 1020      | 3/3            | 38                  | 7.4                    | 2.0                    | 2.9       | 3                        |
| Wolf Creek                          | 76     | 3850      | 1/15           | 36 A                | 7.2E                   | 0.0                    | 2.8       | 3                        |
|                                     |        |           | 2/3            | 30 A                | 7.8E                   | 0.0                    | 3.0       | 2                        |
|                                     |        |           | 2/18           | 43 A                | 11.2E                  | 0.4                    | 0.9       | 2                        |
| Yak Pasture                         | 17     | 540       | 2/1            | 36                  | 7.9                    | 1.0                    | 2.0       | 2                        |
|                                     |        |           | 3/1            | 42                  | 9.0                    | 1.8                    | 3.8       | 9                        |
| <u>COPPER RIVER:</u>                |        |           |                |                     |                        |                        |           |                          |
| Haggard Creek                       | 34     | 2540      | 3/2            | 27                  | 5.1                    | 2.3                    | 3.6       | 6                        |
| Little Nelchina                     | 40     | 4160      | 2/3            | 21 A                | 4.0E                   | 2.6                    | 2.7       | 2                        |
|                                     |        |           | 2/26           | 26 A                | 5.2E                   | 3.7                    | 3.8       | 3                        |
| Mankomen Lake                       | 32     | 3050      | 2/1            | 23                  | 5.0                    | 4.2                    | 3.6       | 4                        |
|                                     |        |           | 3/1            | 30                  | 6.6                    | 4.4                    | 4.5       | 4                        |
| St. Anne's Lake                     | 54     | 1985      | 2/3            | 19                  | 3.0                    | 2.6                    | 3.3       | 5                        |
|                                     |        |           | 2/26           | 22                  | 4.2                    | 3.1                    | 4.3       | 6                        |
| Sanford River                       | 37     | 2280      | 2/2            | 19                  | 3.5                    | 1.7                    | 2.9       | 4                        |
|                                     |        |           | 2/25           | 21 A                | 3.8E                   | 2.1                    | 4.0       | 4                        |
| <u>KUSKOKWIM Drainage:</u>          |        |           |                |                     |                        |                        |           |                          |
| Farewell Lake                       | 43     | 1090      | 3/3            | 30                  | 5.0                    | 0.9                    | 3.0       | 4                        |
| Lake Minchumina                     | 42     | 730       | 3/3            | 37                  | 7.4                    | 1.7                    | 3.6       | 4                        |
| A - Aerial Marker Reading           |        |           |                | E - Estimated       |                        |                        |           |                          |

|    |     |     |     |     |     |     |
|----|-----|-----|-----|-----|-----|-----|
| 4  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 33 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 34 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 36 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 37 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 38 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 39 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 41 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 44 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 46 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 47 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 48 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 49 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

## SNOW

| SNOW                              |        |           | THIS YEAR      |                     |                        | PAST RECORD            |           |                          |
|-----------------------------------|--------|-----------|----------------|---------------------|------------------------|------------------------|-----------|--------------------------|
| DRAINAGE BASIN and/or SNOW COURSE |        |           | Date of Survey | Snow Depth (Inches) | Water Content (Inches) | Water Content (inches) |           | Years of Previous Record |
| NAME                              | Number | Elevation |                |                     |                        | Last Year              | Average † |                          |
| <u>MATANUSKA-SUSITNA:</u>         |        |           |                |                     |                        |                        |           |                          |
| Alexander Lake                    | 49     | 200       | 2/2            | 18                  | 4.1                    | 5.4                    | 6.8       | 6                        |
|                                   |        |           | 2/25           | 42                  | 8.8                    | 8.8                    | 9.3       | 7                        |
| Bald Mtn. Lake                    | 47     | 2150      | 2/2            | 29 A                | 6.1E                   | 1.3                    | 2.2       | 5                        |
|                                   |        |           | 2/25           | 42 A                | 9.2E                   | 2.4                    | 5.3       | 6                        |
| Chelatna Lake                     | 44     | 1650      | 2/2            | 20 A                | 4.2E                   | 5.0                    | 6.3       | 6                        |
|                                   |        |           | 2/25           | 43 A                | 9.5E                   | 7.2                    | 8.4       | 7                        |
| Clearwater Lake                   | 36     | 3100      | 2/2            | 22                  | 4.5                    | 2.0                    | 3.1       | 5                        |
|                                   |        |           | 2/25           | 28                  | 5.6                    | 2.1                    | 2.7       | 5                        |
| Fog Lakes #1                      | 38     | 2270      | 2/2            | 24 A                | 5.0E                   | 0.6                    | 2.0       | 6                        |
|                                   |        |           | 2/25           | 31 A                | 6.8E                   | 1.2                    | 2.4       | 6                        |
| Fog Lakes #2                      | 96     | 2250      | 2/2            | 30                  | 6.9                    | 1.2                    | -         | 1                        |
|                                   |        |           | 2/25           | 38                  | 8.5                    | 2.1                    | -         | 1                        |
| Independence Mine                 | 51     | 3300      | 3/4            | 94                  | 24.0                   | 9.1                    | 10.8      | 5                        |
| Lake Louise                       | 41     | 2400      | 2/3            | 16                  | 2.4                    | 1.5                    | 2.7       | 5                        |
|                                   |        |           | 2/26           | 16                  | 3.0                    | 1.8                    | 3.3       | 6                        |
| Monahan Flat                      | 35     | 2710      | 2/2            | 30                  | 6.5                    | 3.0                    | 4.2       | 5                        |
|                                   |        |           | 2/25           | 40                  | 8.9                    | 3.7                    | 5.4       | 6                        |
| Oshetna Lake                      | 39     | 2950      | 2/3            | 18                  | 2.9                    | 1.9                    | 2.5       | 5                        |
|                                   |        |           | 2/26           | 20                  | 3.7                    | 1.8                    | 2.7       | 7                        |
| Peters Hills                      | 45     | 2010      | 2/2            | 38 A                | 8.4E                   | 7.9                    | 7.9       | 3                        |
|                                   |        |           | 2/25           | 59                  | 14.2                   | 10.8                   | 11.6      | 3                        |
| Sheep Mtn.                        | 53     | 2700      | 3/2            | 20                  | 3.5                    | 4.0                    | 3.6       | 6                        |
| Skwentna                          | 48     | 158       | 2/2            | 18                  | 3.4                    | 6.0                    | 6.5       | 4                        |
|                                   |        |           | 2/25           | 40                  | 7.2                    | 8.1                    | 8.2       | 4                        |
| Talkeetna                         | 46     | 350       | 2/2            | 29                  | 6.2                    | 2.2                    | 4.4       | 4                        |
|                                   |        |           | 2/25           | 39                  | 8.8                    | 2.9                    | 5.6       | 4                        |
| Willow Airstrip                   | 50     | 150       | 2/3            | 18                  | 3.7                    | 1.9                    | 4.4       | 6                        |
|                                   |        |           | 2/26           | 31                  | 6.2                    | 2.5                    | 5.3       | 7                        |
| <u>KOYUKUK Drainage:</u>          |        |           |                |                     |                        |                        |           |                          |
| Bettles Field                     | 2      | 640       | 3/4            | 41                  | 8.6                    | 3.4                    | 6.4       | 4                        |
| Cold Foot                         |        | 1000      | 2/17           | 45                  | 9.8                    | -                      | -         | -                        |
|                                   |        |           | 3/3            | 43                  | 9.9                    | -                      | -         | -                        |
| Dietrich Camp                     |        | 1550      | 2/18           | 33                  | 5.9                    | -                      | -         | -                        |
|                                   |        |           | 3/3            | 33                  | 6.1                    | -                      | -         | -                        |
| Lake Todatonten                   | 77     | 985       | 3/4            | 35 A                | 7.4E                   | 2.2                    | 4.5       | 3                        |
| Prospect Creek                    |        | 980       | 2/17           | 38                  | 7.5                    | -                      | -         | -                        |
|                                   |        |           | 3/3            | 38                  | 7.7                    | -                      | -         | -                        |
| <u>COASTAL Drainage:</u>          |        |           |                |                     |                        |                        |           |                          |
| Arctic Ski Bowl                   | 65     | 3000      | 1/28           | 22                  | 6.9                    | 3.2                    | 7.7       | 5                        |
|                                   |        |           | 2/24           | 34                  | 9.6                    | 5.8                    | 10.0      | 7                        |
| Arctic Valley #1                  | 61     | 500       | 1/28           | 4                   | .5                     | 1.3                    | 2.8       | 5                        |
|                                   |        |           | 2/24           | 9                   | 1.3                    | 1.3                    | 2.8       | 7                        |
| A - Aerial Marker Reading         |        |           |                | E - Estimated       |                        |                        |           |                          |

† 1953-1967 period



# SNOW

| SNOW                              |        |           | THIS YEAR      |                     |                        | PAST RECORD            |           |                          |
|-----------------------------------|--------|-----------|----------------|---------------------|------------------------|------------------------|-----------|--------------------------|
| DRAINAGE BASIN and/or SNOW COURSE |        |           | Date of Survey | Snow Depth (Inches) | Water Content (Inches) | Water Content (inches) |           | Years of Previous Record |
| NAME                              | Number | Elevation |                |                     |                        | Last Year              | Average † |                          |
| <u>COASTAL Drainage:</u>          |        |           |                |                     |                        |                        |           |                          |
| (Continued)                       |        |           |                |                     |                        |                        |           |                          |
| Arctic Valley #2                  | 62     | 1000      | 1/28           | 5                   | .7                     | 1.7                    | 2.7       | 5                        |
|                                   |        |           | 2/24           | 10                  | 1.8                    | 1.8                    | 2.9       | 7                        |
| Arctic Valley #3                  | 63     | 2030      | 1/28           | 14                  | 2.3                    | 3.7                    | 4.1       | 5                        |
|                                   |        |           | 2/24           | 21                  | 3.7                    | 4.3                    | 4.9       | 7                        |
| Arctic Valley #4                  | 64     | 2330      | 1/28           | 15                  | 2.7                    | 4.2                    | 4.7       | 5                        |
|                                   |        |           | 2/24           | 24                  | 4.6                    | 5.2                    | 5.4       | 7                        |
| Bird Creek                        | 66     | 2350      | 2/4            | 26                  | 6.9                    | 10.4                   | 10.2      | 4                        |
|                                   |        |           | 3/3            | 48                  | 13.3                   | 13.5                   | 13.2      | 4                        |
| Goat                              | 59     | 3200      | 3/4            | 28                  | 6.8                    | 20.6                   | 12.0      | 3                        |
| Indian Pass                       | 68     | 2350      | 2/4            | 43                  | 12.0                   | 11.0                   | 12.2      | 4                        |
|                                   |        |           | 3/3            | 66                  | 18.8                   | 14.9                   | 15.4      | 4                        |
| McArthur                          | 52     | 120       | 2/2            | 35 A                | 9.4E                   | 9.7                    | 11.7      | 6                        |
|                                   |        |           | 2/25           | 59 A                | 16.8E                  | 13.7                   | 18.2      | 6                        |
| Moraine                           | 56     | 2100      | 3/4            | 22                  | 3.4                    | 9.0                    | 7.0       | 3                        |
| Ptarmigan                         | 57     | 3000      | 3/4            | 23                  | 4.4                    | 8.2                    | 7.6       | 3                        |
| Ship Creek                        | 67     | 1750      | 2/4            | 25                  | 5.2                    | 6.0                    | 6.6       | 4                        |
|                                   |        |           | 3/3            | 46                  | 10.7                   | 8.3                    | 8.4       | 4                        |
| Worthington Glacier               | 55     | 2400      | 3/2            | 48                  | 12.7                   | 25.7                   | 13.9      | 5                        |
| <u>KENAI PENINSULA:</u>           |        |           |                |                     |                        |                        |           |                          |
| Bertha Creek                      | 98     | 850       | 2/2            | 25                  | 4.9                    | 9.0                    | -         | 1                        |
|                                   |        |           | 3/2            | 31                  | 7.4                    | 10.9                   | -         | 1                        |
| Jean Lake                         | 101    | 620       | 2/3            | 11                  | 1.8                    | 3.6                    | -         | 1                        |
|                                   |        |           | 3/3            | 16                  | 3.2                    | 0.0                    | -         | 1                        |
| Kenai Summit                      | 99     | 1390      | 2/2            | 25                  | 5.3                    | 9.7                    | -         | 1                        |
|                                   |        |           | 3/2            | 43                  | 7.8                    | 11.5                   | -         | 1                        |
| Moose Pass                        | 100    | 700       | 2/1            | 17                  | 2.9                    | 2.5                    | -         | 1                        |
|                                   |        |           | 3/2            | 26                  | 5.9                    | 0.0                    | -         | 1                        |
| <u>SOUTHEAST ALASKA:</u>          |        |           |                |                     |                        |                        |           |                          |
| Crater Lake                       | 73     | 1750      | 2/25           | 149                 | 44.4                   | 50.0                   | 54.0      | 6                        |
| Douglas Ski Bowl                  | 84     | 1640      | 2/27           | 98                  | 34.6                   | 28.3                   | 24.5      | 3                        |
| Long Lake                         | 71     | 1075      | 2/25           | 123                 | 38.8                   | 30.0                   | 36.4      | 6                        |
| Speel River                       | 72     | 275       | 2/25           | 97                  | 29.1                   | 16.0                   | 26.7      | 6                        |
| Upper Long Lake                   | 70     | 1000      | 2/25           | 109                 | 36.0                   | 25.0                   | 31.0      | 6                        |
| <u>NORTHSLOPE</u>                 |        |           |                |                     |                        |                        |           |                          |
| Elusive Lake                      |        | 1800      | 2/3            | 43                  | 11.6                   | -                      | -         | -                        |
|                                   |        |           | 3/3            | 41                  | 11.8                   | -                      | -         | -                        |
| A - Aerial Marker Reading         |        |           |                | E - Estimated       |                        |                        |           |                          |

† 1953-1967 period

11

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1601 UV-Visible Spectrophotometer. The concentration of chlorophylls was expressed in  $\mu\text{g mL}^{-1}$ .

As you can see, the `get` method is implemented as a function that returns the value of the property. This is a common pattern in JavaScript, and it allows you to write code that is more concise and easier to read.

• *1991*

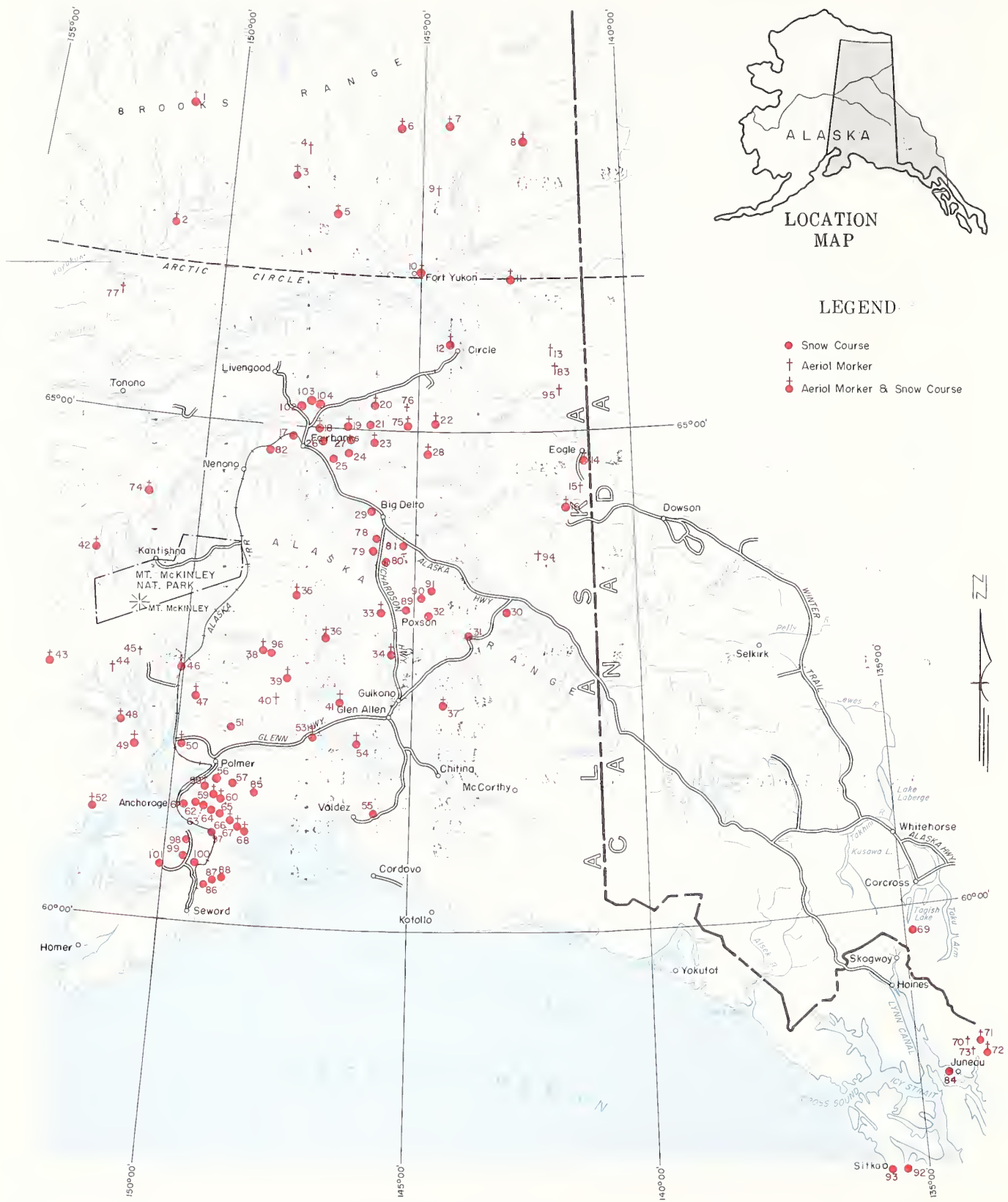
1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

# SNOW

| SNOW                              |        |           | THIS YEAR      |                     |                        | PAST RECORD            |           |                          |
|-----------------------------------|--------|-----------|----------------|---------------------|------------------------|------------------------|-----------|--------------------------|
| DRAINAGE BASIN and/or SNOW COURSE |        |           | Date of Survey | Snow Depth (Inches) | Water Content (Inches) | Water Content (inches) |           | Years of Previous Record |
| NAME                              | Number | Elevation |                |                     |                        | Last Year              | Average † |                          |
| GLACIER STATIONS:                 |        |           |                |                     |                        |                        |           |                          |
| Gulkana Glacier A                 | 89     | 4590      | 6/9            | 22                  | 11.0                   | -                      | -         | -                        |
|                                   |        |           | 6/13           | 21                  | 10.6                   | 0.0                    | 8.6       | 2                        |
|                                   |        |           | 7/16           | 0                   | 0.0                    | -                      | -         | -                        |
|                                   |        |           | 8/25           | 0.4                 | .04                    | -                      | -         | 1                        |
|                                   |        |           | 12/6           | 34                  | 11.8                   | -                      | -         | 1                        |
| Gulkana Glacier B                 | 90     | 5478      | 6/9            | 67                  | 32.7                   | 21.7                   | -         | 1                        |
|                                   |        |           | 6/12           | 76                  | 36.2                   | 44.9                   | -         | 1                        |
|                                   |        |           | 7/16           | 31                  | 19.7                   | -                      | -         | 1                        |
|                                   |        |           | 7/19           | 34                  | 20.5                   | -                      | -         | -                        |
|                                   |        |           | 8/10           | 2                   | 1.6                    | -                      | -         | 1                        |
| Gulkana Glacier C                 | 91     | 6363      | 8/25           | 20                  | 6.7                    | -                      | -         | 1                        |
|                                   |        |           | 12/6           | 56                  | 20.1                   | -                      | -         | 1                        |
|                                   |        |           | 6/13           | 121                 | 52.3                   | 94.5                   | -         | 1                        |
|                                   |        |           | 7/17           | 5                   | 1.6                    | -                      | -         | 2                        |
|                                   |        |           | 8/26           | 46                  | 18.1                   | -                      | -         | 1                        |
| Wolverine Glacier A               | 86     | 2100      | 12/5           | 101                 | 41.3                   | -                      | -         | -                        |
|                                   |        |           | 6/10           | 75                  | 40.6                   | 19.7                   | 17.0      | 2                        |
|                                   |        |           | 7/22           | 0                   | 0.0                    | -                      | -         | 1                        |
|                                   |        |           | 10/3           | 4                   | 0.4                    | -                      | -         | -                        |
|                                   |        |           | 1/9            | 35                  | 10.2                   | -                      | -         | -                        |
| Wolverine Glacier B               | 87     | 3610      | 6/9            | 185                 | 103.5                  | 72.8                   | 65.6      | 2                        |
|                                   |        |           | 7/24           | 130                 | 80.3                   | -                      | 13.4      | 2                        |
|                                   |        |           | 9/20           | 57                  | 37.8                   | -                      | -         | 1                        |
|                                   |        |           | 10/4           | 3                   | 1.2                    | -                      | -         | 1                        |
|                                   |        |           | 1/11           | 80                  | 29.1                   | -                      | -         | -                        |
| Wolvering Glacier C               | 88     | 4430      | 6/9            | 311                 | 165.0                  | 107.1                  | 101.4     | 2                        |
|                                   |        |           | 7/24           | 272                 | 155.1                  | -                      | 58.0      | 2                        |
|                                   |        |           | 9/10           | 216                 | 123.6                  | -                      | 13.6      | 2                        |
|                                   |        |           | 9/29           | 9                   | 2.8                    | -                      | -         | -                        |
|                                   |        |           | 1/8            | 106                 | 38.6                   | -                      | -         | -                        |
| A - Aerial Marker reading         |        |           | E - Estimated  |                     |                        |                        |           |                          |

+ 1953-1967 period





SNOW COURSES for ALASKA



# INDEX OF ALASKA SNOW COURSES

| MAP<br>NO. | COURSE NAME       | COURSE<br>NO. | ELEV. | MAP<br>NO. | COURSE NAME          | COURSE<br>NO. | ELEV. |
|------------|-------------------|---------------|-------|------------|----------------------|---------------|-------|
| 1          | Anaktuvuk Pass    | 51TT1A        | 2100  | 53         | Sheep Mountain       | 47MM1         | 2700  |
| 2          | Bettles Field     | 51RR1A        | 640   | 54         | St. Anne's Lake      | 46MM1A        | 1985  |
| 3          | Chandalar Lake    | 48SS1A        | 2040  | 55         | Worthington Glacier  | 45MM2         | 2400  |
| 4          | Squaw Lake        | 48SS2a        | 2150  | 56         | Moraine              | 48MM1         | 2100  |
| 5          | Venetie           | 46SS1A        | 610   | 57         | Ptarmigan            | 48MM2         | 3000  |
| 6          | Arctic Village    | 45TT1A        | 2300  | 58         | Marmot               | 48MM8A        | 2000  |
| 7          | Koness Lake       | 44SS1A        | 1790  | 59         | Goat                 | 48MM7A        | 3200  |
| 8          | Coleen River      | 42SS1A        | 1100  | 60         | Grizzly              | 48MM4A        | 5000  |
| 9          | Vundik Lake       | 43SS1a        | 950   | 61         | Arctic Valley #1     | 49MM1         | 500   |
| 10         | Fort Yukon        | 45RR1AM       | 425   | 62         | Arctic Valley #2     | 49MM2         | 1000  |
| 11         | Black River       | 42RR1A        | 650   | 63         | Arctic Valley #3     | 49MM3         | 2030  |
| 12         | Circle City       | 44QQ3A        | 600   | 64         | Arctic Valley #4     | 49MM4         | 2330  |
| 13         | Bull Lake         | 41RR1a        | 810   | 65         | Arctic Ski Bowl      | 49MM5         | 3000  |
| 14         | Eagle Village     | 41PP1A        | 900   | 66         | Bird Creek           | 49MM6A        | 2350  |
| 15         | Boundary          | 41PP3A        | 3300  | 67         | Ship Creek           | 49MM7AM       | 1750  |
| 16         | Chicken Airstrip  | 41PP2A        | 1650  | 68         | Indian Pass          | 49MM8A        | 2350  |
| 17         | Yak Pasture       | 47PP1         | 540   | 69         | Log Cabin (B.C.)     | 34KK1         | 2880  |
| 18         | Cleary Summit     | 47QQ1A        | 2230  | 70         | Upper Long Lake      | 33JJ2a        | 1000  |
| 19         | Little Chena      | 46QQ2AP       | 2200  | 71         | Long Lake            | 33JJ1A        | 1075  |
| 20         | Mt. Ryan          | 46QQ1AP       | 2950  | 72         | Speel River          | 33JJ3A        | 275   |
| 21         | Chena Hot Springs | 45QQ1         | 1250  | 73         | Crater Lake          | 33JJ4a        | 1750  |
| 22         | Big Windy         | 44QQ2AP       | 3850  | 74         | Wien Lake            | 51PP1A        | 1020  |
| 23         | Munson Ridge      | 46PP1AP       | 3100  | 75         | Upper Chena          | 44QQ1AP       | 3000  |
| 24         | French Creek      | 46PP2MP       | 2010  | 76         | Wolf Creek           | 44QQ4a        | 3850  |
| 25         | Little Salcha     | 46PP3         | 1500  | 77         | Lake Todatonten      | 52RR1a        | 985   |
| 26         | Glenn Creek       | 47PP2         | 925   | 78         | Ft. Greely           | 45005         | 1420  |
| 27         | Colorado Creek    | 46PP4         | 750   | 79         | Meadows Road         | 45002         | 1570  |
| 28         | Caribou Mine      | 45PP2A        | 1115  | 80         | Donnelly Dome        | 45003         | 2200  |
| 29         | Big Delta         | 45PP1         | 975   | 81         | Granite Creek        | 45004         | 1235  |
| 30         | Tok Junction      | 43OO1         | 1650  | 82         | Bonanza Creek        | 48PP1         | 1150  |
| 31         | Mentasta Pass     | 43NN1         | 2430  | 83         | Dempsey Creek        | 41RR2a        | 950   |
| 32         | Mankomen Lake     | 44NN1         | 3050  | 84         | Douglas Ski Bowl     | 34JJ1         | 1640  |
| 33         | Fielding Lake     | 45OO1A        | 3000  | 85         | Eagle Glacier        | 49MM9         | 4790  |
| 34         | Haggard Creek     | 45NN1A        | 2540  | 86         | Wolverine Glacier #1 | 48LL1         | 2130  |
| 35         | Monahan Flat      | 47OO1A        | 2710  | 87         | Wolverine Glacier #2 | 48LL2         | 3610  |
| 36         | Clearwater Lake   | 46NN1A        | 3100  | 88         | Wolverine Glacier #3 | 48LL3         | 4430  |
| 37         | Sanford River     | 45NN2A        | 2280  | 89         | Gulkana Glacier #1   | 45006         | 4590  |
| 38         | Fog Lakes         | 48NN1A        | 2270  | 90         | Gulkana Glacier #2   | 45007         | 5478  |
| 39         | Oshetna Lake      | 47NN1A        | 2950  | 91         | Gulkana Glacier #3   | 45008         | 6363  |
| 40         | Little Nelchina   | 47NN2a        | 4160  | 92         | Mt. Bassie           | 35H1          | 1200  |
| 41         | Lake Louise       | 46NN2A        | 2400  | 93         | Blue Lake            | 35H2          | 950   |
| 42         | Lake Minchumina   | 52OO1A        | 730   | 94         | Mt. Fairplay         | 42001a        | 3100  |
| 43         | Farewell Lake     | 53NN1A        | 1090  | 95         | Nation River         | 41QQ1a        | 3050  |
| 44         | Chelatna Lake     | 51NN1a        | 1650  | 96         | Fog Lakes #2         | 48NN2         | 2250  |
| 45         | Peters Hills      | 50NN1a        | 2010  | 97         | Mt. Alyeska          | 49LL1         | 1300  |
| 46         | Talkeetna         | 50NN2         | 350   | 98         | Bertha Creek         | 49LL2         | 850   |
| 47         | Bald Mt. Lake     | 49NN1A        | 2150  | 99         | Kenai Summit         | 49LL3         | 1390  |
| 48         | Skwentna          | 51MM1A        | 158   | 100        | Moose Pass           | 49LL4         | 700   |
| 49         | Alexander Lake    | 50MM1A        | 200   | 101        | Jean Lake            | 50LL1         | 620   |
| 50         | Willow Airstrip   | 50MM2         | 150   | 102        | Haystack Mtn.        | 47QQ2         | 1950  |
| 51         | Independence Mine | 49MM10        | 3300  | 103        | Caribou Creek        | 47QQ3         | 1440  |
| 52         | McArthur          | 52LL1A        | 120   | 104        | Poker Creek          | 47QQ4         | 1000  |

## Legend

45TT1 Snow Course Only  
 45TT1M Snow Course & Soil Moisture  
 45TT1A Snow Course & Aerial Marker  
 45TT1a Aerial Marker Only  
 45TT1P Snow Course & Precipitation Gage

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
P.O. BOX F, PALMER, ALASKA 99645

OFFICIAL BUSINESS



POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF AGRICULTURE

FIRST CLASS MAIL

FEDERAL - STATE - PRIVATE  
**COOPERATIVE SNOW SURVEYS**

Furnishes the basic data  
necessary for forecasting  
water supply for irrigation,  
domestic and municipal water  
supply, hydro-electric power  
generation, navigation,  
mining and industry

*"The Conservation of Water begins  
with the Snow Survey"*

U.S. Dept of Agriculture  
Library  
Current Serial Record  
Washington, D. C. 20250